



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/564,319

10/12/2006

Stephen J. Russell

000071-5001-US

7481

43850

7590

06/03/2009

MORGAN, LEWIS & BOCKIUS LLP (SF)  
One Market, Spear Street Tower, Suite 2800  
San Francisco, CA 94105

EXAMINER

TORRES VELAZQUEZ, NORCA LIZ

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

06/03/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/564,319	<b>Applicant(s)</b> RUSSELL ET AL.	
	<b>Examiner</b> Norca L. Torres-Velazquez	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-21, 33-36 and 41-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-21, 33-36 and 41-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 24, 2009 has been entered.

### ***Response to Amendment***

2. Independent claim 1 has been amended to include the limitation "said fabric having permeability sufficient to enable storage of fluids within the voids". The Examiner found support for such limitation in paragraphs [0063] and [0066] of the published application.
3. New claims 46-48 are supported in paragraphs [0009], [0066] and [0075].
4. No new matter was found.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-8, 10-21, 33-36, 41-44 and 46-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
7. Independent claim 1 claims that "said fabric having permeability sufficient to enable storage of fluids within the voids". It is the Examiner's position that the claim is indefinite because the term "fluid" is known to be a substance (as liquid or gas) tending to flow or conform

Art Unit: 1794

to the outline of its container. [Merriam-Webster's Collegiate Dictionary, Tenth edition] Thus, given the indefinite number of substances that will meet such definition and the different properties that such substances have (i.e. such as viscosity), it is difficult to determine what type of permeability will be that necessary in order to "enable storage" of such fluids within the voids of the material, unless the fabric is completely impermeable.

8. It is noted herein that the claim as written is not limited to liquids. For examining purposes, air would be considered to be a suitable substance that will meet the claimed term "fluids".

9. Claims 2-8, 10-21, 33-36 and 41-48 are rejected as being dependent on indefinite claim 1.

***Claim Rejections - 35 USC § 103***

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**11. Claims 1-8, 10-14, 16-21, 33-34, 41 and 45-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Le ROY (US 5,475,904) in view of VUILLAUME (US 5,396,689) and CURRO et al. (US 6,863,960 B2).**

Le ROY composite laps that comprises two basic laps that can be joined together by needling, the laps may be fibrous laps which have been woven or preconsolidated by mechanical or thermal or chemical means or by any other method of consolidation. The basis laps may consist of the same material or materials of different origin and structure and of different weights and densities. (Col. 2, lines 13-22) The reference teaches introducing an interleaved constituent through longitudinal ducts constructed within the ribs in such a way that the interleaved constituent is located between the basic laps. (Refer to Col. 2, lines 1-5) The interleaved

Art Unit: 1794

constituent may be introduced in the form of a fluid and may have specific properties such as insulating, absorbent, among others. (Col. 2, lines 27-34) Complementarily, or alternatively, the interleaved constituent may incorporate threads or filaments of materials such as synthetic, animal and mineral materials. (Col. 2, lines 35-38) The reference discloses a basic lap comprising a preconsolidated non-woven polyester material weighing 80 to 150 gsm and a second basic lap consists of a preconsolidated non-woven viscose material weighing 150 to 230 gsm. (Col. 7, lines 36-40)

With regards to the thickness of the nonwoven, it is noted that while the reference is silent to such property, it discloses different embodiments related to different applications/final products. It is the Examiner's position the thickness of the material would be an obvious modification according to the end-use of the fabric. It is well settled that determination of optimum values of cause effective variables such as thickness is within the skill of one practicing the art. In re Boesch, 205 USPQ 215 (CCPA 1980). With regards to the type of different functional materials that could be used, it is the Examiner's position that these would be obvious in view of the teachings of Le Roy that teaches that the interleaved constituent may be materials such as fluid, powder, filaments, wires... and further teaches that these materials impart specific properties to the composite lap. (Refer to Col. 2, lines 5-50)

While LE ROY teaches interengagement for joining the laps using needling, it is silent to the use of water jets (hydroentanglement).

VUILLAUME relates to a process of making a composite textile structure containing two nonwoven fibrous sheets with a reinforcing structure incorporated in between. The reference teaches using "water jets" as the mechanical needling treatment to bond the nonwoven sheets

Art Unit: 1794

forming the composite. The reference teaches that the composite formed is subjected to the action of a mechanical treatment which makes it possible to implant the fibers of one sheet within the other and vice versa. (Refer to Abstract and Col. 3, lines 58-61)

It would have been obvious to one having ordinary skill in the art of multilayer composites to use water jets for needling in the construction of LE ROY as an alternative to the needling mechanism used by LE ROY as both references teach achieve the similar result of implanting fibers of one sheet within the other sheet and vice versa. A reference may be understood by the artisan as suggesting a solution to a problem that the reference does not discuss. See KSR, 137 S. Ct. at 1742, 82 USPQ2d at 1397 “Common sense teaches... that familiar items may have obvious uses beyond their primary purposes, and in any cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle. ... A person of ordinary skill is also a person of ordinary creativity, not an automaton.”).

With regards to the new limitation “said fabric having a permeability sufficient to enable storage of fluids within the voids”, the Examiner provides herein the reference of CURRO et al. that discloses a user-activatable substance delivery system that comprises a first web and a second web and defined voids spaced in between with a substance for delivery upon user activation is disposed in the void space. (Abstract)

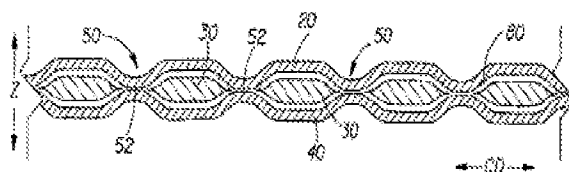


Fig. 6

Art Unit: 1794

In one embodiment, the reference teaches a liquid substance 30 is in intimate contact with the outer layers 20 and 40 and outer layers 20 and 40 do not contact except at the bond sites 50. (Col. 11, lines 28-37; Figure 6 reproduced above) The reference teaches the use of nonwoven materials that include spunbonded, meltblown, carded and spunlaced (hydroentangled) materials. (Col. 5, lines 53-55) The reference teaches that the substance enclosed in the voids or pouch could be any substance that is useful for consumer-activatable substance delivery systems. For example, it can be a low viscosity fluid, such as perfume, water-based cleaning fluids; or can be a relatively high viscosity fluid such as oil, grease, a cream, a gel, or a lotion. It can also be a gel or a sterile substance. (Refer to Col. 8, lines 1-20)

It is the Examiner's position that controlling the permeability in order to contain, for example, liquid substances in nonwoven construction would have been obvious to one having ordinary skill in the art. Entanglement is known to be used to build a fabric structure such as that provided by the Le Roy reference and Vuillaume shows that hydroentanglement is an alternative method to needling in the construction of nonwoven materials. The CURRO et al. reference shows a similar construction and while it is not made by entanglement to form the voids spaces, it does shows that spunlaced (hydroentangled) materials are suitable in the construction of substance delivery systems that include the storage of liquid materials, similar to the product of the present invention. It is well settled that determination of optimum values of cause effective variables such as permeability is within the skill of one practicing the art. In re Boesch, 205 USPQ 215 (CCPA 1980). In this particular case, the permeability of the spunlaced material could be adjusted by increasing the degree of entanglement of the fabric in order to hold/store a liquid substance of a particular viscosity. A reference may be understood by the artisan as

Art Unit: 1794

suggesting a solution to a problem that the reference does not discuss. See KSR, 137 S. Ct. at 1742, 82 USPQ2d at 1397 “Common sense teaches... that familiar items may have obvious uses beyond their primary purposes, and in any cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle. ... A person of ordinary skill is also a person of ordinary creativity, not an automaton.”).

**12. Claims 15, 35-36 and 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over LE ROY, VUILLAUME and CURRO as applied above, and further in view of SUZUKI et al. (US 4,377,615).**

SUZUKI et al. relates to nonwoven fabrics having multilayer structures. The structure taught by the reference is to be used as the outer cover in applications such as sanitary napkins, disposable diapers and the like. (Col. 1, lines 6-26) The reference teaches using a hydrophobic layer and a hydrophilic layer (refer to col. 2, lines 3-19). One having ordinary skill in the art would provide the construction LE ROY with a at least one hydrophilic layer and at least one hydrophobic layer motivated by the desire of producing a capillary effect in the material that will allow for moisture or fluid wicking in a direction of the fabric. Such property would make the construction useful in applications such as diapers in which superior permeability and prevention of back flow of body exudates against the nonwoven fabric is desired and when dryness is desirable in the surface.

**13. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over LE ROY, VUILLAUME and CURRO as applied to claim 1 above, and further in view of TOWERY et al. (WO 88/01570).**

Art Unit: 1794

TOWERY et al. relates to water-vapor-permeable yet waterproof coated fabric prepared by applying a polyurethane resin to the fabric. (Abstract) Thus, one having ordinary skill in the art would have provided the structure of LE ROY with a polyurethane coating to achieve the predictable result of producing a fabric that could be used for example, in garment applications which require perspiration and moisture vapor to escape from the inside while being used, while repelling water from the outside as taught by TOWERY. (Refer to page 4, first paragraph). A reference may be understood by the artisan as suggesting a solution to a problem that the reference does not discuss. See KSR, 137 S. Ct. at 1742, 82 USPQ2d at 1397 “Common sense teaches... that familiar items may have obvious uses beyond their primary purposes, and in any cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle. ... A person of ordinary skill is also a person of ordinary creativity, not an automaton.”).

### ***Response to Arguments***

14. Applicant's arguments filed April 24, 2009 have been fully considered but they are not persuasive.

- Applicants argue that LE ROY's needling technique is inherently unsuitable and inadequate for the storage of fluids as now claimed.

It is noted herein that the construction taught by LE ROY will inherently provide for the storage of air which is by definition a fluid. In that context, the reference itself provides for the newly added limitation. The Examiner has relied upon the Vuillaume reference to show that hydroentanglement is an alternative mechanical needling treatment that provides similar result of implanting fibers of one sheet within

Art Unit: 1794

the other sheet and vice versa and now provides the CURRO et al. reference that further shows that spunlaced (hydroentangled) nonwoven fabrics are suitable in the construction of substance delivery systems that include the storage of liquid materials, similar to the product of the present invention. Thus, it is the Examiner's position that providing the LE ROY structure by hydroentanglement will provide a material suitable to also store liquids as shown in CURRO et al. reference.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-5:00 pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Norca L. Torres-Velazquez/  
Primary Examiner, Art Unit 1794

May 30, 2009